

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 2

REMARKS

In the Office Action of August 30, 2006, the Examiner indicates, and the Applicant acknowledges, that claims 1-73 are currently pending. The Applicant wishes to express appreciation for the timeliness of the Official Office Action. The Applicant wishes to thank the Examiner for the early indication of allowability of subject matter contained in claims 60-62, 64-67, and 69-73.

Turning to paragraph 3 of the Office Action, the Examiner has maintained the previous rejection of claims 1-39 and 42-57 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner continues by stating, "the claims lack sufficient structure for producing the vehicle equipment control signal for each of the possible components listed in the group (claims 1, 14 and 28) whereas claims 36 and 42 do not recite any structures capable of producing the vehicle equipment control signal."

As an initial matter, a rejection under 35 U.S.C. §112, second paragraph, can only be maintained when a particular claim limitation, or claim in total, is indefinite in light of the corresponding specification. Here, the Examiner has seemingly disregarded the description of structure that generates a vehicle equipment control signal as a function of at least a portion of at least one image as provided throughout the original specification and as recited in each of the independent claims. Additionally, the Examiner has not even acknowledged the Applicant's remarks contain in the previous request for reconsideration.

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 3

The Applicant once again respectfully points out that each of the independent claims (claims 1, 14, 28, 36 and 42) incorporates "comprising" in an effort to not exclude additional structure beyond that which is explicitly recited in any given independent or dependent claim. Each independent claim recites an imager which, as painstakingly described throughout the original specification, constitutes structure described to generate at least one vehicle equipment control signal as a function of at least a portion of at least one image. As described in detail throughout the present disclosure, there is a host of other structure; such as, at least one enhanced transceiver, at least one memory and at least one low voltage signal transceiver that are described to generate at least one vehicle equipment control signal as a function of at least a portion of at least one image. Various combinations of the structure disclosed throughout the specification is explicitly recited in each independent claims. As a matter of fact, the claim set is structured such that when more than one of the individual structural elements is recited, any one or more than one may generate at least one vehicle equipment control signal as a function of at least a portion of at least one image.

In the previous Office Action the Examiner stated that for purposes of further examination on the merits, the wherein clause "is being interpreted as an intended use of the image information". The Applicant subsequently submitted that it is a complete mischaracterization of the claim language to interpret the wherein clause "as an intended use of the image information" as stated by the Examiner. In the current Office Action the Examiner has maintained his earlier position. In actuality the limitation recites additional structure in the form of at least one vehicle equipment control signal.

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 4

The Applicant wishes to respectfully point to the provisions of MPEP 2173.06 regarding prior art rejection of claim rejected as indefinite:

When the terms of a claim are considered to be indefinite, at least two approaches to the examination of an indefinite claim relative to the prior art are possible

First, where the degree of uncertainty is not great, and where the claim is subject to more than one interpretation and at least one interpretation would render the claim unpatentable over the prior art, an appropriate course of action would be for the examiner to enter two rejections: (A) a rejection based on indefiniteness under, §112, second paragraph; and (B) a rejection over the prior art based on the interpretation of the claims which renders the prior art applicable. See, e.g., *Ex parte Ionescu*, 222 USPQ 537 (Bd. App. 1984). When making a rejection over prior art in these circumstances, it is important for the examiner to point out how the claim is being interpreted. Second, where there is a great deal of confusion and uncertainty as to the proper interpretation of the limitations of a claim, it would not be proper to reject such a claim on the basis of prior art. As stated in *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962), a rejection under §103 should not be based on considerable speculation about the meaning of terms employed in a claim or assumptions that must be made as to the scope of the claims.

The Applicant respectfully submits that "the degree of uncertainty is not great" and without question does not fall to the level of involving "a great deal of confusion and uncertainty". The Applicant respectfully submits, as described above, that claims 1, 14, 28, 36 and 42 are definite and specifically point out and distinctly claim the subject matter which the Applicant regards as the invention and has explicitly described throughout the disclosure. Therefore, the Applicant once again requests that the corresponding rejections be withdrawn.

Turning to paragraph 5 of the Office Action the Examiner has further rejected claims 28 and 29 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,008,486, to Stam et al. The Applicant submits that the MPEP and related laws, rules and case law is quite clear as to anticipation of a claim. MPEP §2131 states:

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 5

In order for a claim to be anticipated under 35 U.S.C. §102, however, each and every element as set forth in the claim must be found in a single prior art reference. MPEP § 2131 (emphasis added).

For at least the reasons expressed above, the Applicant respectfully submits that Stam et al. does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claim 29 depends from claim 28, the Applicant respectfully submits that claims 28 and 29 are in condition for allowance over Stam et al.

Turning to paragraph 6 of the Office Action the Examiner has further rejected claims 14, 16-18, and 20-23 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,806,485, to Jackson Jr. For at least the reasons expressed above, the Applicant respectfully submits that Jackson Jr. does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 14. In that claims 16-18, 20, 21 and 23

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 6

depend from claim 14, the Applicant respectfully submits that claims 14, 16-18, 20, 21 and 23 are in condition for allowance over Jackson Jr.

Turning to paragraph 7 of the Office Action the Examiner has further rejected claims 28-31 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication 2003/0210334, to Sarwari. For at least the reasons expressed above, the Applicant respectfully submits that Sarwari does not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claims 29-31 depends from claim 28, the Applicant respectfully submits that claims 28, 29-31 are in condition for allowance over Sarwari.

Turning to paragraph 8 of the Office Action the Examiner has rejected claims 1-13, 15, 19, 24-29, 31-33, 36-49, 54-59 and 68 under 35 U.S.C. §103(a) as being unpatentable over Jackson Jr. in view of U.S. Patent 6,515,271, to Shimizu and U.S. Patent 5,796,094, to Schofield et al.

The requirements for making a *prima facie* case of obviousness are described in MPEP §2143 as follows:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 7

must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

MPEP §2143.01 provides further guidance as to what is necessary in showing that there was motivation known in the prior art to modify a reference teaching. Specifically, MPEP §2143.01 states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

A statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art' at the time the claimed invention was made,' because the references relied upon teach all aspects of the claimed invention were individually known in the prior art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

The Applicant notes that the Examiner has not provided any rationale as to why one skilled in the art would have considered replacing the conventional automatic vehicle exterior light control systems (such as that disclosed in the art relied upon by the Examiner) with an image sensor configured as disclosed and claimed in the present application, let alone any rationale as to why one skilled in the art would have found such a modification to have been desirable. The Applicant's recognition that use of an image sensor as disclosed and claimed was obtained through years of research and development. The same is true with regard to modification of the devices of prior art in that utilization of apparatus as disclosed and claimed in the present application was not

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 8

contemplated.

For at least the reasons expressed above, the Applicant respectfully submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an automatic vehicle equipment control system, comprising: at least one imager comprising at least one image sensor and at least one other component selected from the group comprising: at least one temperature sensor, at least one control output and at least one low voltage differential signal transceiver; at least one enhanced transceiver; and at least one interconnection between said at least one imager and said at least one enhanced transceiver, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 1. In that claims 2-13 depend from claim 1, the Applicant respectfully submits that claims 1-13 are in condition for allowance over the art of record.

The Applicant further submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 14. In that claims 15, 18, 19 and 24-27 depend from claim 14, the Applicants respectfully submit that claims 15, 18, 19 and 24-27 are in condition for allowance over the art of record.

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 9

The Applicant further submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an automatic vehicle equipment control system, comprising: an imager comprising an imager, comprising: an image sensor and at least one other component selected from the group comprising: at least one control output and at least one low voltage differential signal transceiver, wherein said image sensor and said at least one other component are formed on a common silicon wafer, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 28. In that claims 29-33 depend from claim 28, the Applicant respectfully submits that claims 28-33 are in condition for allowance over the art of record.

The Applicant further submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an automatic vehicle equipment control system, comprising: an enhanced transceiver, comprising: at least one low voltage differential signal transceiver and at least one memory formed on a common silicon wafer configured to communicate with an imager, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 36. In that claims 37-39 depend from claim 36, the Applicant respectfully submits that claims 36-39 are in condition for allowance over the art of record.

The Applicant further submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an imager board interconnection, comprising: at least one low voltage differential signal transceiver defining at least a

Applicant : Joseph S. Stam et al.
Appn. No. : 10/783,131
Page : 10

portion of the imager board interconnection, wherein the imager board interconnection is configured to operate up to at least one megabaud without emitting unacceptable electromagnetic interference as recited in claim 40. In that claim 41 depends from claim 40, the Applicant respectfully submits that claims 40 and 41 are in condition for allowance over the art of record.

The Applicant further submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an automatic vehicle equipment control system, comprising: an enhanced transceiver comprising at least one low voltage differential signal transceiver and at least one memory configured to communicate with an imager, wherein at least one vehicle equipment control signal is generated as a function of at least a portion of at least one image as recited in claim 42. In that claims 43-49 and 54-57 depend from claim 42, the Applicant respectfully submits that claims 42-49 and 54-57 are in condition for allowance over the art of record.

The Applicant further submits that Jackson Jr., Shimizu or Schofield et al., taken individually or in combination, do not teach or suggest an automatic vehicle equipment control system, comprising: a vision system, comprising: at least one imager comprising at least one image sensor and at least one low voltage differential signal transceiver formed on a common silicon wafer; at least one processor; and at least one enhanced transceiver interconnected between said at least one imager and said at least one processor, said at least one enhanced transceiver comprising at least one dual port memory as recited in claim 58. In that claims 59 and 68 depend from claim 58, the Applicant respectfully submits that claims 58, 59 and 68 are in condition for allowance

Applicant : Joseph S. Stam et al.
Appln. No. : 10/783,131
Page : 11

over the art of record.

Turning to paragraph 9 of the Office Action, the Applicant respectfully submits for at least the reasons expressed above with regard to claim 58 and in that claims 60-62, 64-67 and 69-73 depend from claim 58 that claims 60-62, 64-67 and 69-73 are in condition for allowance.

Turning to paragraph 10 of the Office Action, the Applicant respectfully submits for at least the reasons expressed above with regard to claim 28 and in that claims 34 and 35 depend from claim 28 that claims 34 and 35 are in condition for allowance.

In view of the foregoing remarks, the Applicant respectfully submits that the present application is in condition for allowance over the art of record. The Applicant, therefore, requests that the Examiner issue a notice of allowance. Please contact the undersigned should additional information be required.

Respectfully submitted,
JOSEPH S. STAM ET AL.
By: Gentex Corporation

October 30, 2006
Date

J. Shultz Jr.
James E. Shultz Jr.
Registration No. 50,511
600 N. Centennial Street
Zeeland, Michigan 49464
616/772-1800